

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A fuel injection valve comprising:
a valve section including ofcomprising:
a cylindrical moving iron core that reciprocates in an axial direction in response to
a fuel injection signal;
a valve element integrated with said moving iron core at one end and provided
with a valve seat at the other end; and
a valve main body in which the valve element is accommodated; and
a plate provided with orifices that are opened and closed as said valve seat comes
in contact with and moves away from a valve seat face of the valve main body~~the orifices and~~
~~parts therefrom~~; and
a solenoid section including ofcomprising:
a cylindrical stationary iron core disposed facing said moving iron core in said
axial direction;
a cylindrical yoke disposed on ~~the~~an outer circumference of said moving iron
core;
a non-magnetic metal sleeve where said stationary iron core and said yoke are
joined into one body by welding;

a housing forming a magnetic loop with said stationary iron core, moving iron core and yoke;

a coil that is disposed on the outer circumference of said stationary iron core and gives axial electromagnetic attraction to said moving iron core; and

a compression spring-to-urge spring force that moves urging said valve element toward said plate;

wherein said moving iron core is provided with a radial recess of a predetermined width and a predetermined depth on the outer circumference thereof of the moving iron core at a position facing a magnetic characteristic change portion produced in said yoke due to heat generated when said sleeve and said yoke are welded together.

2. (original) The fuel injection valve according to claim 1, wherein said valve element of which one end is integrated with said moving iron core is made of a magnetic material.